

M7VIP

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Motherboard Description

English

M7VIP Features

- ✧ Use VIA VT8367 (KT333) / VT8235 Chipset, Winbond W83697HF.
- ✧ Contains on board I/O facilities, which include two serial ports, a parallel port, a PS/2 mouse port, a PS/2 keyboard port, audio ports, USB ports and a game port.
- ✧ Supports Single Socket-A for an AMD Athlon/ Duron Family processor, running at 200 or 266 MHz Front Side Bus frequency. (For Version 1.0)
- ✧ Supports Single Socket-A for an AMD Athlon/ Duron Family processor, running at 200, 266 or 333 MHz Front Side Bus frequency. (For Version 1.1 and above)
- ✧ The AMD Athlon system bus supports the 200/266 MHz high-speed, split-transaction AMD Athlon system bus interface. (For Version 1.0)
- ✧ The AMD Athlon system bus supports the 200/266/333 MHz high-speed, split-transaction AMD Athlon system bus interface. (For Version 1.1 and above)
- ✧ Supports Ultra DMA 33/66/100/133 Bus Master Modes, PIO Mode 4, Master Mode, and high performance hard disk drives.
- ✧ Supports USB2.0 High Speed Device, 2 ports in rear panel and 4 ports in front panel.
- ✧ The VT8367 (KT333) system controller is designed to support 200/266/333 MHz DDR SDRAM DIMMs.
- ✧ Support a maximum memory size up to 3GB.
- ✧ Supports one CNR Slot (Type B only), one AGP Slot (AGP 4X), and five 32-bit PCI Bus slots.
- ✧ Complies with PC ATX form factor specifications.
- ✧ Supports popular operating systems such as Windows NT, Windows 98SE, Windows 2000, Windows ME, Windows XP and LINUX.
- ✧ CPU over temperature protection.

Motherboard Description

- ★ Intel® AC'97 2.2 compatible. High S/N ratio meets PC 99 requirements.
- ★ Line-in phonejack and Mic-in jack share with rear Audio out for 6 channels Audio.
- ★ Support front audio pin head functions.
- ★ Support wake up from USB keyboard/ mouse.
- ★ Support 3 ports firewire 1394 function (Optional).
- ★ Support 2 serials and 1 parallel Serial ATA and Raid functions (Optional).
- ★ Support over speed/ voltage function (Optional).
- ★ 1394 Features:
 - OHCI Compliant Programming Interface.
 - Compliant with 1394 Open HCI Specifications v1.0 and v1.1.
 - Descriptor based isochronous and asynchronous DMA channels for receive/ transmit packets.
 - 32-Bit Power-Managed PCI Bus Interface
 - Compliant with PCI specification v2.2.
 - Integrated 400 Mbit 3-Port PHY.
 - Supports provisions of IEEE 1394-1995 Standard.
 - Fully interoperable with IEEE Std 1394-1995 devices.
- ★ PDC20376 Serial ATA-Raid Features:
 - Single chip, high performance SATA-RAID implementation.
 - Built in 2 channels SATA PHY, which satisfy SATA 1.0 specification and can transfer data with 1.5GHz speed.
 - Additional one parallel ATA interface which satisfy ATA 133 specification.
 - Bus mastering design takes full advantage of multi-tasking, multi-threading operating systems and greatly improves performance.
 - Provides advance chained packet commands for independent ATA operations.

Motherboard Description

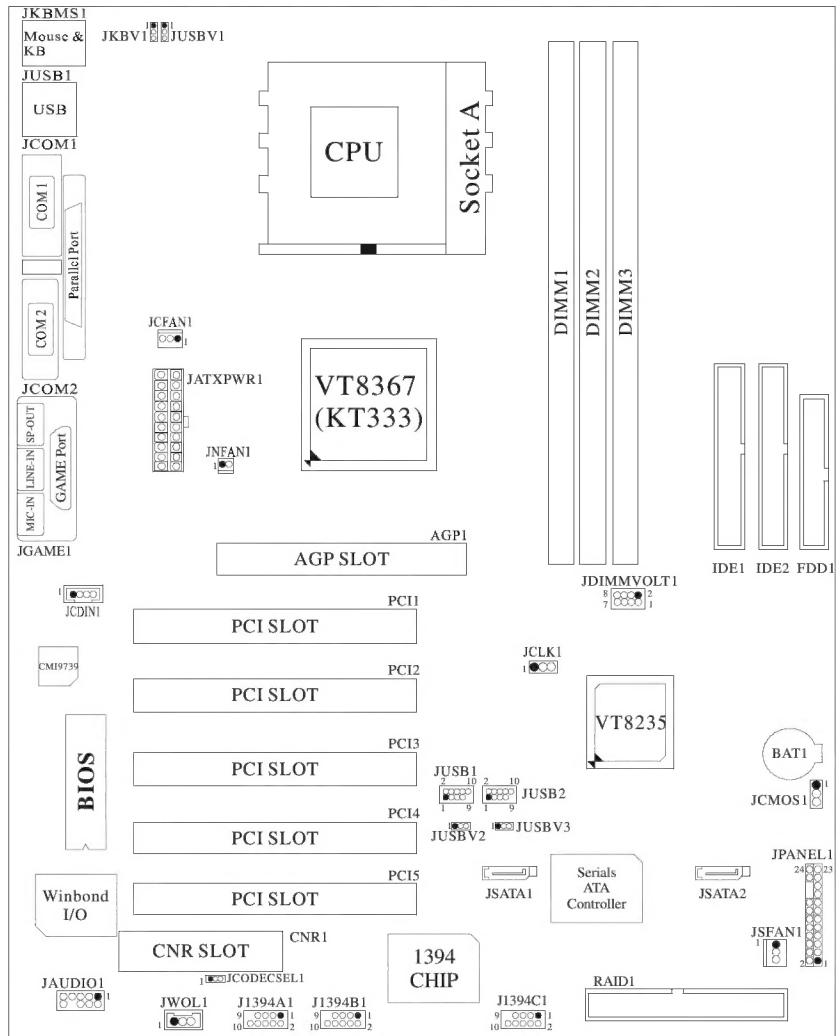
- Compatible with the latest PCI IDE, ATA 7 and enhanced IDE specifications.
- Supports ATA proposal PIO Mode 0, 1, 2, 3, 4, Ultra DMA Mode 0, 1, 2, 3, 4, 5, 6. The IDE drive transfer rate is capable of up to 150 MB/sec.
- Automatically detects whether or not the cable is suitable for mode 3, 4, 5, 6 of Ultra DMA.
- Compliance with the PC2000, WHQL hardware requirements.

Package contents

- ★ HDD Cable X 1, FDD Cable X 1, Fully Setup Driver CD X 1
- ★ Flash Memory Writer for BIOS update X 1
- ★ USB Cable X 2 (Optional)
- ★ Rear I/O Panel for ATX Case X 1 (Optional)

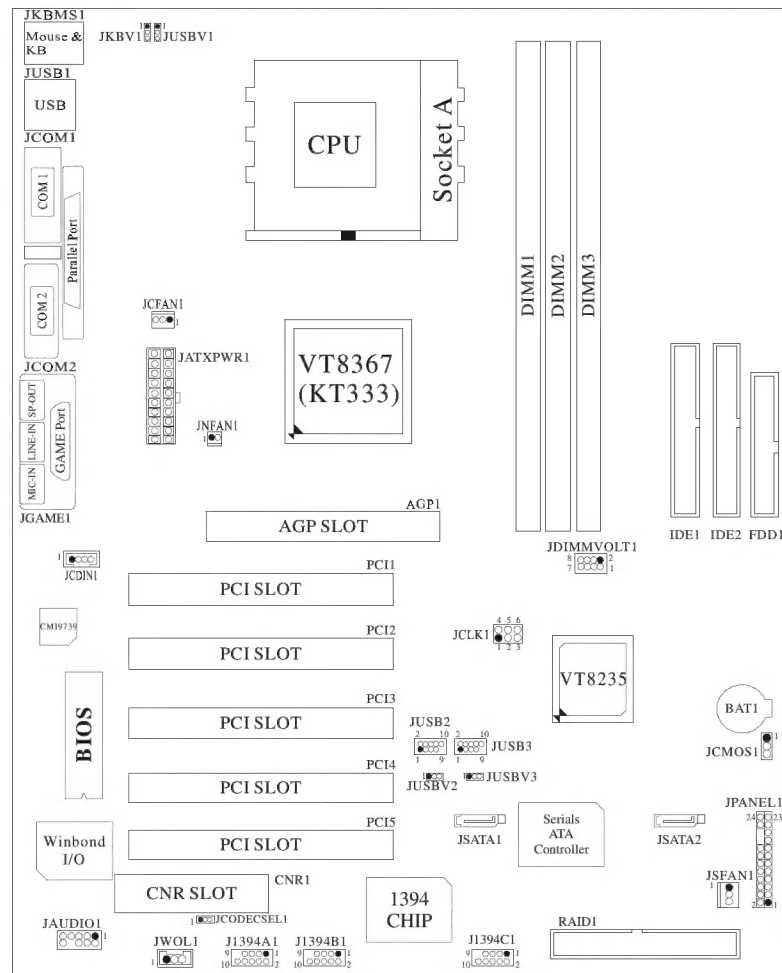
Motherboard Description

Layout of M7VIP (For Version 1.0)



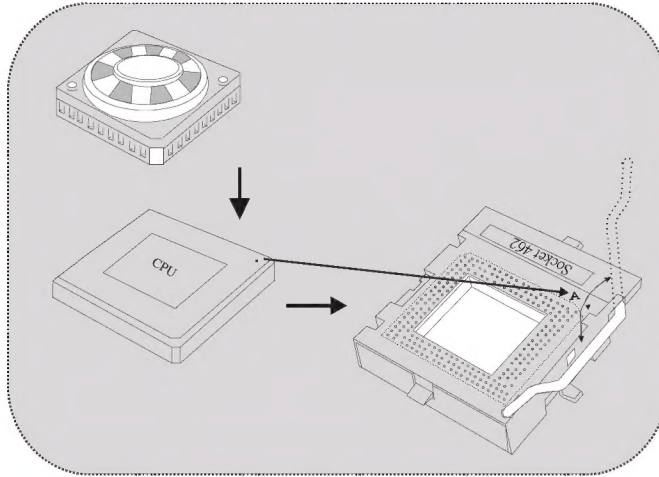
Motherboard Description

Layout of M7VIP (For Version 1.1 and above)



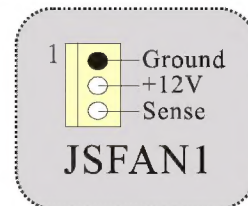
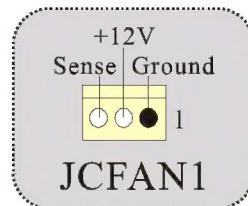
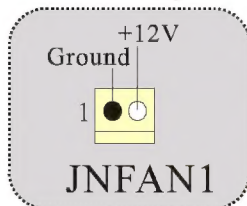
Motherboard Description

CPU Installation



1. Pull the lever sideways away from the socket then raise the lever up to 90-degree angle.
2. Locate Pin A in the socket and look for the white dot or cut edge in the CPU. Match Pin A with the white dot/cut edge then insert the CPU.
3. Press the lever down. Then Put the fan on the CPU and buckle it and put the fan's power port into the JCFAN1, then to complete the installation.

CPU/ System Fan Headers: JCFAN1/ JSFAN1/ JNFAN1



Motherboard Description

Note: CPU Over Temperature Protection

When the CPU temperature is over 110°C (for .13μ CPU) or 120°C (for .18μ CPU), the system will automatically shut-down. If this situation occurs, please check if your CPU fan is working properly. If not, change the CPU fan, and then restart the system.

DDR DIMM Modules: DIMM1-2-3

DRAM Access Time: 2.5V Unbuffered/ Registered DDR 1600/ 2100/ 2700 Type required.

DRAM Type: 64MB/ 128MB/ 256MB/ 512MB/ 1GB DIMM Module (184 pin)

DIMM Socket Location	DDR Module	Total Memory Size (MB)
DIMM 1	64MB/128MB/256MB/512MB/1GB *1	Max is 3GB
DIMM 2	64MB/128MB/256MB/512MB/1GB *1	
DIMM3	64MB/128MB/256MB/512MB/1GB *1	

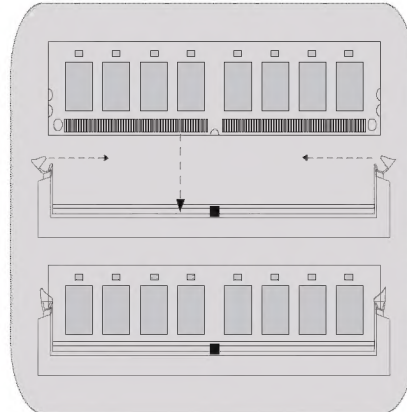
- The list shown above for DRAM configuration is only for reference.

*** If use FSB 333MHz CPU, the Memory run only at DDR333 (PC2700). (For Version 1.1 and above)**

Motherboard Description

How to install a DIMM Module

1. The DIMM socket has a “Plastic Safety Tab”, and the DIMM memory module has an “Asymmetrical notch”, so the DIMM memory module can only fit into the slot in one direction.
2. Push the tabs out. Insert the DIMM memory modules into the socket at a 90-degree angle, then push down vertically so that it will fit into the place.
3. The Mounting Holes and plastic tabs should fit over the edge and hold the DIMM memory modules in place.



Motherboard Description

Jumpers, Headers, Connectors & Slots

Hard Disk Connectors: IDE1/ IDE2

The motherboard has a 32-bit Enhanced PCI IDE Controller that provides PIO Mode 0~4, Bus Master, and Ultra DMA 33/ 66/ 100/ 133 functionality. It has two HDD connectors IDE1 (primary) and IDE2 (secondary).

The IDE connectors can connect a master and a slave drive, so you can connect up to four hard disk drives. The first hard drive should always be connected to IDE1.

Floppy Disk Connector: FDD1

The motherboard provides a standard floppy disk connector that supports 360K, 720K, 1.2M, 1.44M and 2.88M floppy disk types. This connector supports the provided floppy drive ribbon cables.

Communication Network Riser Slot: CNR1

The CNR specification is an open Industry Standard Architecture, and it defines a hardware scalable riser card interface, which supports audio, and modem only.

Peripheral Component Interconnect Slots: PCI1-5

This motherboard is equipped with 5 standard PCI slots. PCI stands for Peripheral Component Interconnect, and it is a bus standard for expansion cards, which has, supplanted the older ISA bus standard in most ports. This PCI slot is designated as 32 bits.

Accelerated Graphics Port Slot: AGP1

Your monitor will attach directly to that video card. This motherboard supports video cards for PCI slots, but it is also equipped with an Accelerated Graphics Port. An AGP card will take advantage of AGP technology for improved video efficiency and performance, especially with 3D graphics.

Serial ATA Connector: (JSATA1/ JSATA2) (Optional)

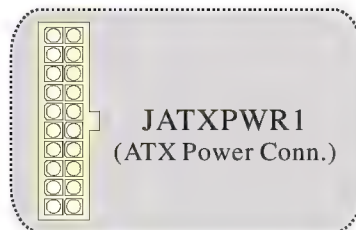
The motherboard has a PCI to SATA Controller with 2 channels SATA interface, it satisfies the SATA 1.0 spec and can transfer data with 1.5GHz speed. For more details, please refer to page 21(FastTrak 376).

Motherboard Description

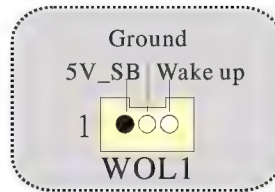
Raid Connector: RAID1 (Optional)

This connector supports RAID0 or RAID1 configuration through the onboard Serial ATA (FastTrak 376) controller chip. You can use the IDE feature to set up a disk array configuration and to support additional IDE devices. However, it can only support master mode IDE HDD.

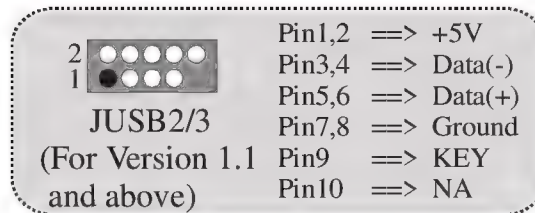
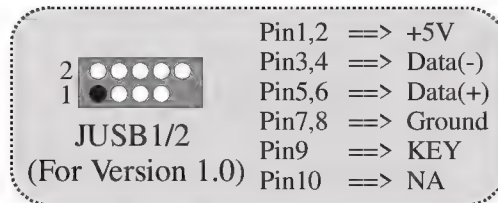
Power Connectors: JATXPWR1



Wake On LAN Header: JWOL1

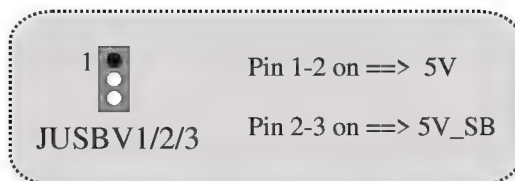


Front USB Header: JUSB1/ JUSB2/ JUSB3

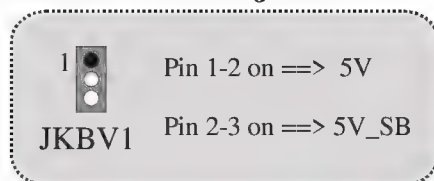


Motherboard Description

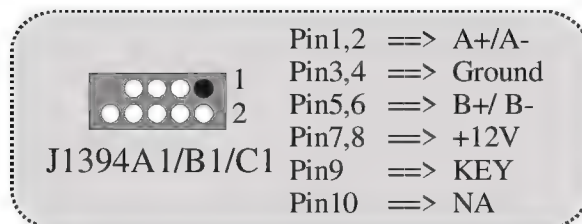
5V/ 5VSB Selection for USB: JUSBV1/2/3



5V/ 5VSB Selection for KB: JKBV1



Front 1394 Header: J1394A1/ J1394B1/ J1394C1 (Optional)



Motherboard Description

CPU Frequency Selection: JCLK1



JCLK1
(For Version 1.1 and above)

Pin 1-2, 5-6 ==> 100 Mhz
Pin 2-3, 5-6 ==> 133 Mhz
(default)
Pin 2-3, 4-5 ==> 166Mhz



JCLK1
(For Version 1.0)

Pin 1-2 ==> 100 Mhz
Pin 2-3 ==> 133 Mhz
(default)

DDR DIMM Voltage: JDIMMVOLT1



JDIMMVOLT1
(Default ==> 2.5V)

Pin 1-2 on ==> 2.5V
Pin 3-4 on ==> 2.6V
Pin 5-6 on ==> 2.7V
Pin 7-8 on ==> 2.8V

CNR Codec Primary/Secondary Selection:

JCODECSEL1

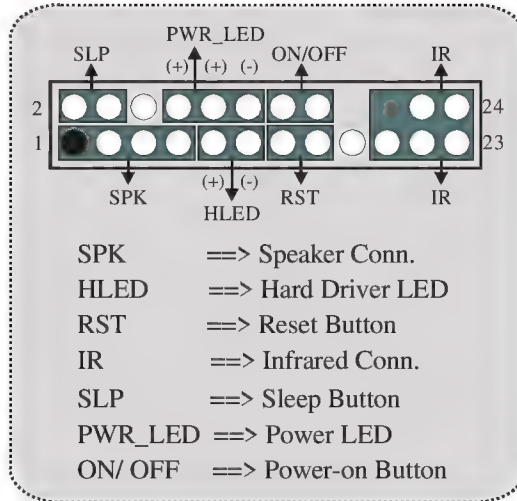


JCODECSEL1

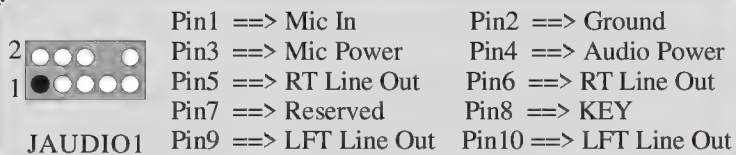
Pin 1-2 ==> On-board Primary Codec
Pin 2-3 ==> CNR Primary Codec

Motherboard Description

Front Panel Connector: JPANEL1



Audio Subsystem: JAUDIO1/ JCDIN1



Motherboard Description

Front Panel Audio Connector/ Jumper Block



Pin 5 and 6

Pin 9 and 10

==> Audio line out signals are routed to the back panel audio line out connector.

Audio line out and mic in signals are available for front panel audio connectors.

Clear CMOS Jumper: JCMOS1

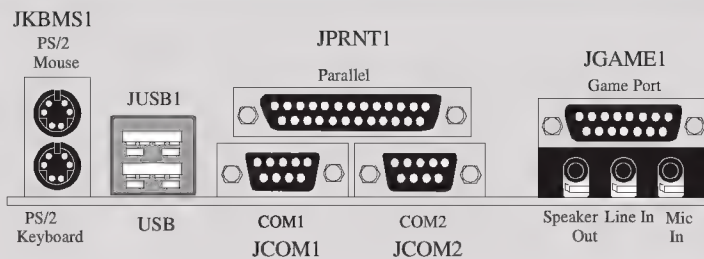


JCMOS1

Pin 1-2 on ==> Normal Operation (default)

Pin 2-3 on ==> Clear CMOS Data

Back Panel Connectors



Español

Características del M7VIP

- ✧ Usa Chipsets VIA VT8367 (KT333)/ VT8235 y Winbond W83697HF.
- ✧ Contiene facilidades I/O integrados en la placa madre en el que incluye dos puertos en serie, un puerto paralelo, un puerto para el ratón PS/2, un puerto para teclado PS/2, puertos de audio, puertos USB y puerto de juego.
- ✧ Soporta Single Socket-A para procesadores de la familia AMD Athlon/Duron, corriendo a 200 o 266 MHz frecuencia Front Side Bus. (Para Versión 1.0)
- ✧ Soporta Single Socket-A para procesadores de la familia AMD Athlon/Duron, corriendo a 200, 266 o 333MHz frecuencia Front Side Bus. (Para Versiones 1.1 en adelante)
- ✧ El sistema bus AMD Athlon soporta alta velocidad de 200/266 MHz, sistema bus split-transaction AMD Athlon de interface. (Para Version 1.0)
- ✧ El sistema bus AMD Athlon soporta alta velocidad de 200/266/333 MHz, sistema bus split-transaction AMD Athlon de interface. (Para Versiones 1.1 en adelante)
- ✧ Soporta Modos Ultra DMA 33/66/100/133 Bus Master, Modo 4 PIO, Modo Master, y alta performance del disco duro.
- ✧ Soporta Dispositivo USB2.0 High Speed, 2 puertos en el panel trasero y 4 puertos en el panel frontal.
- ✧ El sistema controlador VT8367 (KT333) está diseñado para soportar DDR SDRAM DIMMs de 200/266/333 MHz.
- ✧ Soporta una memoria máxima de hasta 3GB.
- ✧ Soporta una ranura CNR (solamente de Tipo B), una ranura AGP (AGP 4X), y cinco ranuras de 32-bit PCI Bus.
- ✧ Compatible con las especificaciones del factor de forma de tamaño de PC ATX.
- ✧ Soporta sistemas operativos populares tales como Windows NT, Windows

Motherboard Description

98SE, Windows 2000, Windows ME, Windows XP y LINUX.

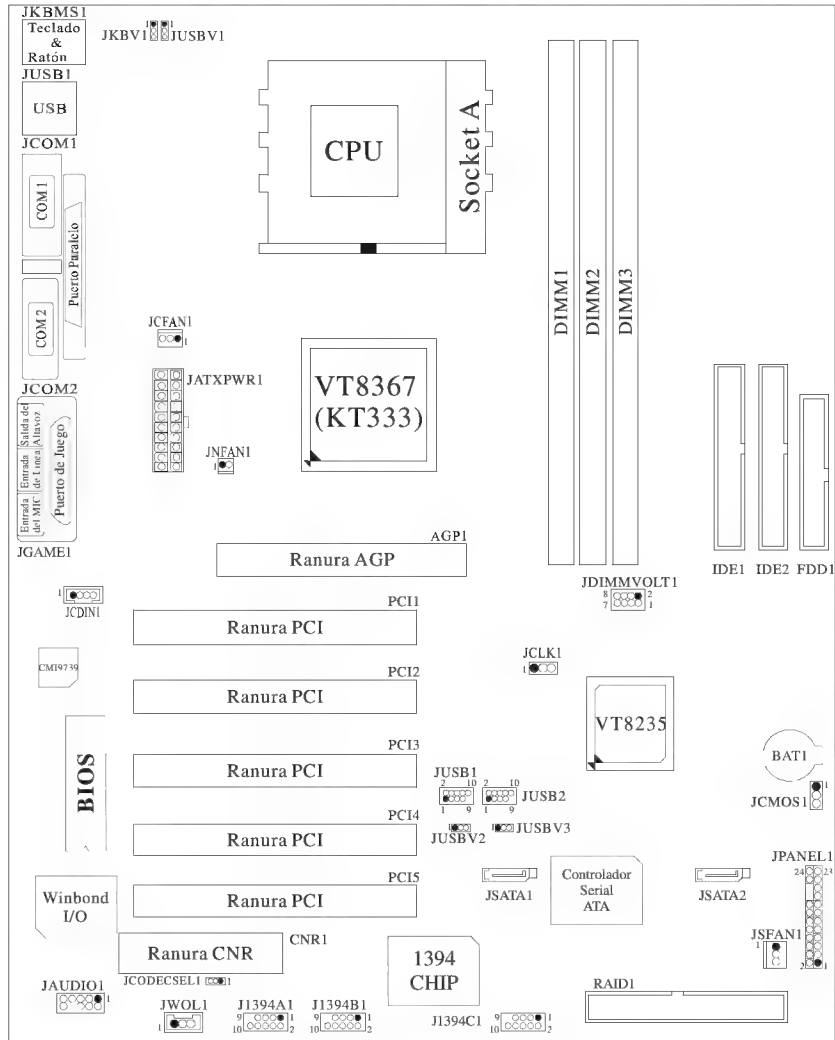
- ★ Protección contra exceso de temperatura del CPU.
- ★ Compatible con Intel® AC'97 2.2. High S/N ratio reúne los requisitos del PC 99.
- ★ Entrada del Línea phonejack y Entrada del Micrófono jack compartido con el rear Audio out para canales de 6 Audios.
- ★ Soporta funciones del cabezal del audio frontal.
- ★ Soporta función de reinicio desde el USB del teclado/ ratón.
- ★ Soporta 3 puertos de la función firewire 1394 (Opcional).
- ★ Soporta 2 en serie y 1 paralelo función Serial ATA y Raid (Opcional).
- ★ Soporta función over speed/ voltage (Opcional).

Contenido del Paquete

- ★ Cable HDD X 1, Cable FDD X 1, Configuración completa del Driver CD X 1
- ★ Flash Memory Writer para actualización del BIOS X 1
- ★ Cable USB X 2 (Opcional)
- ★ Panel trasero I/O para caja ATX X 1 (Opcional)

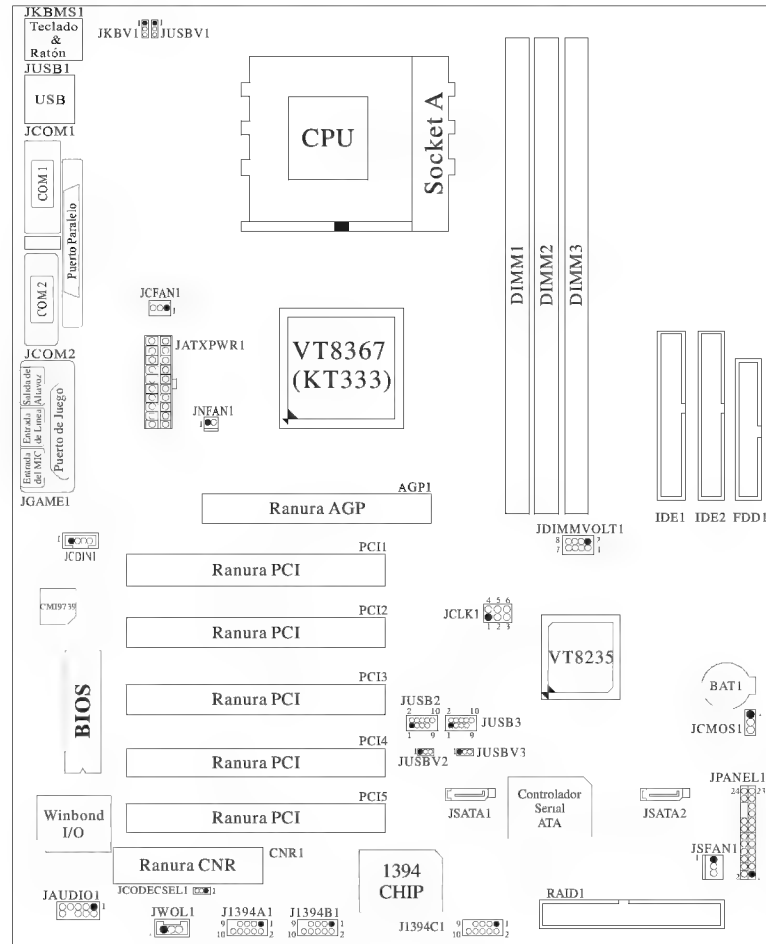
Motherboard Description

Disposición del M7VIP (Para Versión 1.0)



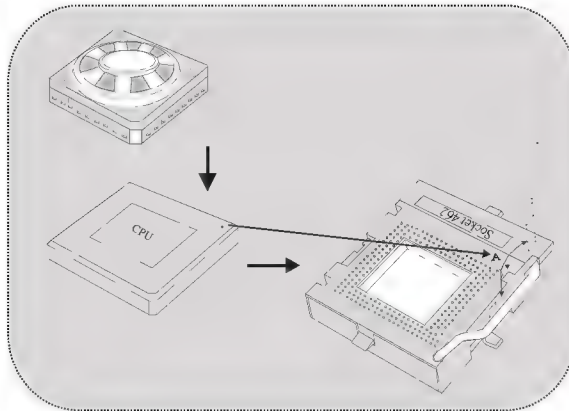
Motherboard Description

Disposición del M7VIP (Para Versiones 1.1 en adelante)



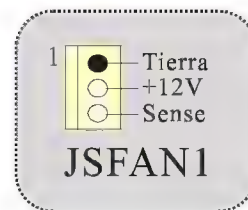
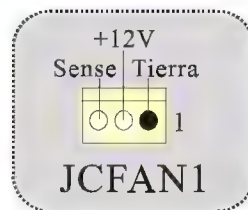
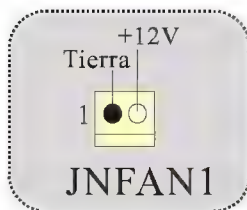
Motherboard Description

Instalación de la CPU



1. Tire de la palanca del lado del zócalo, luego levante la palanca hasta un ángulo de 90 grados.
2. Sitúe el contacto A del zócalo y busque el punto blanco o corte el borde en la CPU. Empareje el contacto A con el punto blanco/corte del borde, luego inserte la CPU.
3. Presione la palanca para abajo. Ponga el ventilador en la CPU y abróchelo. Luego ponga el puerto de corriente del ventilador en el JCFAN1. Y ya habrá completado su instalación.

CPU/ Cabezal del Sistema de Ventilación: JCFAN1/ JSFAN1/ JNFAN1



Motherboard Description

Nota: Protección contra el exceso de temperatura

Cuando la temperatura de la CPU esté sobre los 100°C (para CPU .13μ) o 110°C (para CPU .18μ), el sistema se apagará automáticamente. Si esta situación ocurre, por favor asegúrese que el ventilador de la CPU esté funcionando correctamente. Si no, cambie el ventilador de la CPU y vuelva a iniciar el sistema.

Módulos DDR DIMM: DIMM1-2-3

DRAM Tiempo de Acceso: 2.5V Unbuffered/ Registered DDR 1600/ 2100/ 2700 Tipo requerido.

DRAM Tipo: 64MB/ 128MB/ 256MB/ 512MB/ 1GB Módulo DIMM (184 contactos)

Localización del Zócalo DIMM	Módulo DDR	Total del Tamaño de la Memoria (MB)
DIMM 1	64MB/128MB/256MB/512MB/1GB *1	Máximo de 3GB
DIMM 2	64MB/128MB/256MB/512MB/1GB *1	
DIMM3	64MB/128MB/256MB/512MB/1GB *1	

- La lista de arriba para la configuración DRAM es solamente para referencia.

*** Si utiliza FSB 333MHz CPU, la memoria corre solamente a DDR333 (PC2700). (Para versiones 1.1 en adelante)**

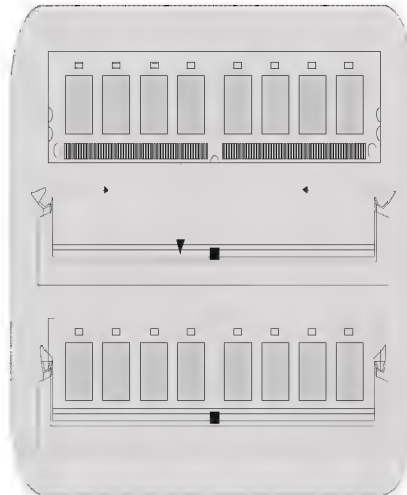
Motherboard Description

Cómo instalar un Módulo DIMM

1. El zócalo DIMM tiene una lengüeta plástica de seguridad y el módulo de memoria DIMM tiene una muesca asimétrica, así el módulo de memoria DIMM puede caber solamente en la ranura de una sólo dirección.

2. Tire la lengüeta hacia afuera. Inserte los módulos de memoria DIMM en el zócalo a los 90 grados, luego empuje hacia abajo verticalmente de modo que encaje en el lugar.

3. Los agujeros de montaje y las lengüetas plásticas deben caber por sobre el borde y sostenga los módulos de memoria DIMM en el lugar.



Motherboard Description

Puentes, Cabezales, Conectores y Ranuras

Conectores del Disco Duro: IDE1/ IDE2

La placa madre tiene un controlador de 32-bit PCI IDE que proporciona Modo PIO 0~4, Bus Master, y funcionalidad Ultra DMA / 33/ 66/ 100. Tiene dos conectores HDD IDE1 (primario) y IDE2 (secundario). El conector IDE puede conectar a un master y un drive esclavo, así puede conectar hasta cuatro discos rígidos. El primer disco duro debe estar siempre conectado al IDE1.

Conector para Disquete: FDD1

La placa madre proporciona un conector estándar del disquete (FDC) que soporta 360K, 720K, 1.2M, 1.44M y 2.88M tipos de disquete. Éste conector utiliza los cables de cinta proporcionados por el disquete.

Ranura de la Banda de Suspensión de Comunicación y Red: CNR1

La especificación CNR es una abierta Industria de Arquitectura Estándar, que define una tarjeta de interface escalable del hardware en el que soporta audio y modem.

Ranura de Interconexión del Componente Periférico: PCI1-5

Esta placa madre está equipada con 5 ranuras estándar PCI. PCI es la sigla para Interconexión del Componente Periférico, y es un bus estándar para tarjetas de expansión en el que suplanta a la antigua bus estándar ISA, en su mayoría de las partes. Esta ranura PCI está diseñado con 32 bits.

Ranura del Puerto Acelerado para Gráficos: AGP1

Su monitor se fijará directamente a la tarjeta de video. Esta placa madre soporta tarjetas de video para ranuras PCI, y también está equipado con un Puerto Acelerado para Gráficos. Esta tarjeta AGP tomará ventaja de la tecnología del AGP para el mejoramiento de la eficiencia y funcionamiento del video, especialmente con gráficos 3D.

Conector Serial ATA: (JSATA1/ JSATA2) (Opcional)

Esta placa madre contiene un PCI junto a un controlador SATA con 2 canales de interface SATA, que satisface el spec de SATA 1.0 y también puede transferir datos de hasta una velocidad de 1.5GHz.

Motherboard Description

Para más información, por favor refiérase a la página 21 (FastTrak 376).

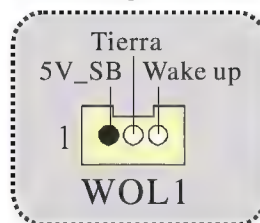
Raid Connector: RAID1 (Opcional)

Este conector soporta configuración RAID0 o RAID1 por medio del chip controlador Serial ATA (FastTrak 376) integrado en la placa madre. Usted puede usar las características del IDE para configurar la configuración de un disk array y para soportar dispositivos adicionales del IDE. Sin embargo, solamente puede soportar modo master del IDE HDD.

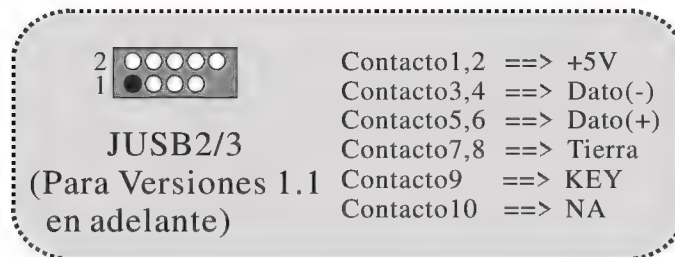
Conector de Corriente: JATXPWR1



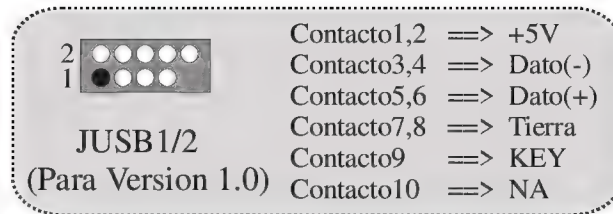
Cabezal Wake On LAN: JWOL1



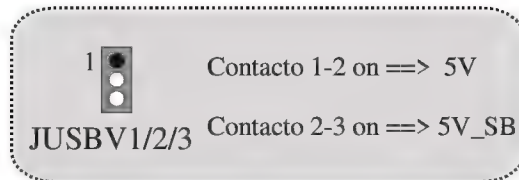
Cabezal Frontal USB: JUSB1/ JUSB2/ JUSB3



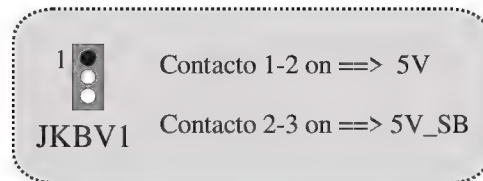
Motherboard Description



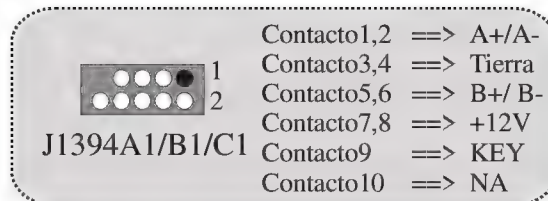
5V/ 5VSB Selección para USB: JUSBV1/2/3



5V/ 5VSB Selección para KB: JKBV1




Cabezal Frontal 1394: J1394A1/ J1394B1/ J1394C1 (Opcional)




Motherboard Description

Selección de la Frecuencia del CPU: JCLK1


 JCLK1
(Para Versiones 1.1 en adelante)

Contacto 1-2, 5-6 ==>	100 Mhz
Contacto 2-3, 5-6 ==>	133 Mhz (default)
Contacto 2-3, 4-5 ==>	166Mhz

 JCLK1
(Para Version 1.0)


Contacto 1-2 ==>	100 Mhz
Contacto 2-3 ==>	133 Mhz (default)

Voltaje DDR DIMM: JDIMMVOLT1

 JDIMMVOLT1
(Default ==> 2.5V)

Contacto 1-2 on ==>	2.5V
Contacto 3-4 on ==>	2.6V
Contacto 5-6 on ==>	2.7V
Contacto 7-8 on ==>	2.8V

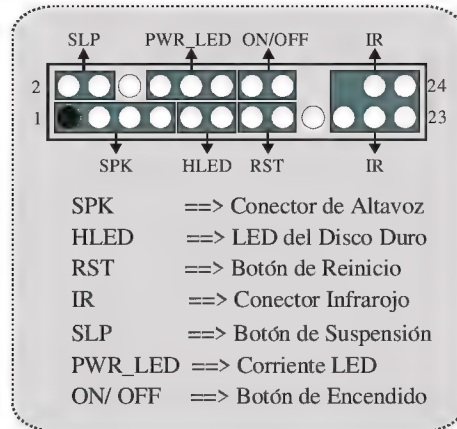
Selección Codec Primario/ Secundario CNR: JCODECSEL1

 JCODECSEL1

Contacto 1-2 ==>	Codec Primario On-board
Contacto 2-3 ==>	Codec Primario CNR

Motherboard Description

Conector del Panel Frontal: JPANEL1



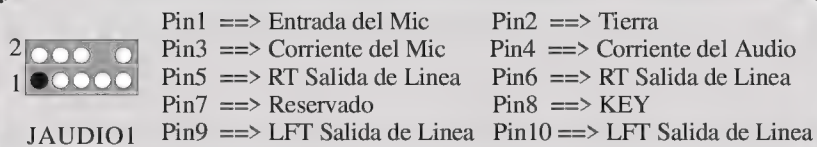
Subsistema de Audio: JAUDIO1/ JCDIN1



JAUDIO1
(Cabezal de Audio Frontal)

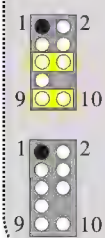


JCDIN1
(Cabezal de Entrada de Audio CD-ROM)



Motherboard Description

Conector del Panel Frontal de Audio/ Jumper Block



Pin 5 y 6

==>

La señal de salida de línea del Audio encamina al conector de la salida de línea del Audio ubicado en el panel trasero.

Pin 9 y 10

La señal de salida de línea del Audio y la señal de Entrada del Mic estan disponibles desde el conector de Audio del panel frontal.

Puente de Borrar CMOS: JCMOS1

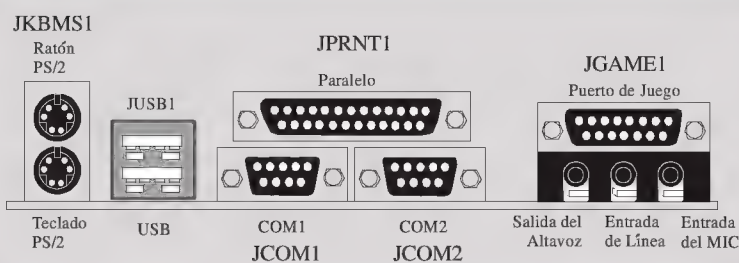


Contacto 1-2 on ==> Operación Normal (default)

Contacto 2-3 on ==> Borrar Datos CMOS

JCMOS1

Conectores del Panel Trasero



Serial ATA Chip - FastTrak 376

Step 1: Installing the Hard Drives



Important

If you wish to include your current bootable Serial or Parallel ATA drive using the Windows NT 4.x, Windows 2000, or Windows XP operating system on your FastTrak 376 Controller.

You MUST install the Windows NT4, 2000, or XP driver software first onto this drive while it is still attached to your existing hard drive controller.

1. Configure the jumpers of the *Parallel* ATA hard drive you're preparing to connect to the FastTrak 376 controller using the proper Master, Slave, or Cable-Select settings. For more information, refer to the manual that came with your hard drive.
2. Install all of the hard drives into the hard drive bays of your system, including their power cables.
3. Attach the *Parallel* ATA cable to the hard drive(s) and to the Parallel ATA Port connector on the FastTrak 376 controller. The colored edge of the cable indicates pin 1. The blue cable connector attaches to the FastTrak 376.
4. Attach *Serial* ATA data cable to each hard drive. Then attach the other ends of the cables to one of the Serial ATA ports on the FastTrak 376 controller. All of the connectors are keyed so they will only attach one way.



Note

FastTrak 376 is a PCI Plug-n-Play (PnP) device. No changes are necessary in the Motherboard CMOS Setup for resources or drive types in most applications.

Motherboard Description

Step 2: Auto Setup FastBuild™ Configuration Utility



WARNING: Before installing the driver into an existing system, backup any necessary data. Failure to follow this accepted PC practice could result in data loss.

Creating Your Disk Array

You will now use the FastBuild™ Configuration utility to create your array using the attached drives. There are three different scenarios in creating this array. You can create an array for performance, you can create a Security array using new hard drives (recommended), or you can create a Security array using an existing hard drive and a new hard drive.



WARNING: If creating a Security array using an existing hard drive, backup any necessary data. Failure to follow this accepted PC practice could result in data loss.

1. Boot your system. If this is the first time you have booted with the FastTrak 376 and drives installed, the Promise onboard BIOS will display the following screen.

FastTrak 376 (tm) BIOS Version 1.00.0.XX
(c) 2002-2005 Promise Technology, Inc. All Rights Reserved.

No array defined . . .

Press <Ctrl-F> to enter FastBuild (tm) Utility
Or press <ESC> key to continue booting the system.

Motherboard Description

2. Press <Ctrl-F> keys to display the FastBuild™ Utility Main Menu.

FastBuild (tm) Utility 2.xx (c) 2002-2005 Promise Technology, Inc.
[Main Menu]

Auto Setup.....	[1]
View Drive Assignments.....	[2]
View Array	[3]
Delete Array	[4]
Rebuild Array.....	[5]

[Keys Available]

Press 1...5 to Select Option	[ESC] Exit
------------------------------	------------

3. Press "1" to display the Auto Setup Menu below. This is the fastest and easiest method to creating your first array.

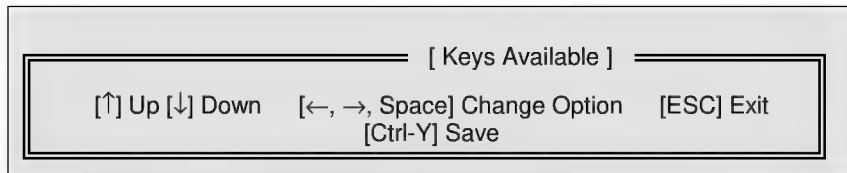
FastBuild (tm) Utility 2.xx (c) 2002-2005 Promise Technology, Inc.
[Auto Setup Options Menu]

Optimize Array for:	Performance
---------------------	-------------

[Array Setup Configuration]

Mode	Stripe
Spare.....	0
Drives used in Array	2
Array Disk Capacity.....	16126

Motherboard Description



Creating an Array for Performance

NOTE: FastTrak 376 allows users to create striped arrays with 1, 2 drives.

To create an array for best performance, follow these steps:

Using the Spacebar, choose "Performance" under the **Optimize Array for** section.

Press <Ctrl-Y> keys to Save and create the array.

Reboot your system.

Once the array has been created, you will need to FDISK and format the array as if it were a new single hard drive.

Proceed to Installing Drivers section of the manual (see page 28).

Creating a Security Array With New Drives

NOTE: FastTrak 376 permit only two drives to be used for a single Mirrored array in Auto Setup.

To create an array for data protection using new hard drives, follow these steps:

1. Using the Spacebar, choose "Security" under the **Optimize Array for** section.
2. Press <Ctrl-Y> keys to Save your selection.
3. The window below will appear.

Do you want the disk image to be duplicated to another? (Yes/No)
Y - Create and Duplicate
N - Create Only

4. Press "N" for the Create Only option.

Motherboard Description

5. A window will appear almost immediately confirming that your Security array has been created. Press any key to reboot the system

Array has been created.
<Press Any Key to Reboot>

6. Proceed with normal FDISK and format procedures as if you had just installed a new hard drive.
7. Once the arrayed drives have been formatted, proceed to the **Installing Driver** chapter on page 28 to install your operating system and/or FastTrak 376 driver.

Creating a Security Array With An Existing Data Drive

NOTE: FastTrak 376 permits only two drives to be used for a single Mirrored array in Auto Setup.

You would use this method if you wish to use a drive that already contains data and/or is the bootable system drive in your system. You will need another drive of identical or larger storage capacity.



WARNING: Backup any necessary data before proceeding. Failure to follow this accepted PC practice could result in data loss.



WARNING: If you wish to include your current bootable drive using the Windows NT 4.x or Windows 2000 operating system as part of a bootable Mirrored (RAID 1) array on your FastTrak 376, do NOT connect the hard drive to the FastTrak 376 controller yet. You MUST install the Windows NT4 or 2000 driver software first (see page 28) to this drive while it is still attached to your existing hard drive controller. For all other Operating Systems, proceed here.

Follow these steps:

1. Using the Spacebar, choose "Security" under the **Optimize Array for** section.
2. Press <Ctrl-Y> keys to Save your selection. The window below will appear.

Motherboard Description

Do you want the disk image to be duplicated to another? (Yes/No)
Y - Create and Duplicate
N - Create Only

- Press "Y" for the Create and Duplicate option. The window below will appear asking you to select the Source drive to use. FastBuild will copy all data from the Source drive to the Target drive.

[Source Disk]		
Channel:ID	Drive Model	Capacity (MB)
[Target Disk]		
Channel:ID	Drive Model	Capacity (MB)
[Please Select A Source Disk]		
Channel:ID	Drive Model	Capacity (MB)
1 :Master	QUANTUMCR8.4A	8063
2 :Master	QUANTUMCR8.4A	8063
[Keys Available]		
[↑] Up [↓] [ESC] Exit [Enter] Select		

- Use the arrow keys to choose which drive contains the existing data to be copied.
- Press Enter key to Save selection and start duplication. The following progress screen will appear.

Start to duplicate the image . . .
Do you want to continue? (Yes/No)
Y – Continue N – Abort

- Select "Y" to continue. If you choose "N", you will be returned to step 1.
- Once complete, the following screen will appear confirming that your Security array has been created. Press any key to reboot the system.

Motherboard Description

Array has been created.
<Press Any Key to Reboot>

8. Proceed to the **Installing Driver** chapter on page 28 to install the FastTrak 376 driver and/or operating system.

Motherboard Description

Step 3: Installing Software Drivers

This section details the FastTrak 376 driver installation when used with various operating systems. The software includes the driver necessary to identify FastTrak 376 to the operating system.

- For Windows 2000/XP, see below.
- For Windows 98/Me, see page 30.
- For Windows NT 4.x, see page 32

NOTE: 1. The device driver is included in the Driver CD with the directory root of X:\Driver\SerATA (X is your CD-ROM).

2. To create a "FastTrak 376 driver diskette", please copy the controller driver files from the driver CD that comes with the motherboard. The path is "X:\Driver\SerATA".

Windows 2000/XP

Installing Driver During New Windows 2000 Installation

- 1a. Floppy Install: Boot the computer with the Windows 2000 installation diskettes.
- 1b. Floppyless Install: Boot from floppy and type "WINNT". After files have been copied, the system will reboot. On the reboot, press <F6> after the message "Setup is inspecting your computer's hardware configuration..." appears.
- 1c. CD-ROM Install: Boot from the CD-ROM. Press <F6> after the message "Press F6 if you need to install third party SCSI or RAID driver" appears.
2. When the "Windows 2000 Setup" window is generated, press "S" to Specify an Additional Device(s)
3. Press "O" to select "Other" and press the "Enter" key.
4. Insert the Promise Technology® driver diskette into drive A: and press "Enter" key.
5. Choose "Win2000 Promise FastTrak 376 (tm) Controller" from the list that appears on screen, then press the "Enter" key.
6. The Windows 2000 Setup screen will appear again saying "Setup will load support for the following mass storage devices:" The list will include

Motherboard Description

"Win2000 Promise FastTrak 376 (tm) controller".

NOTE: *If you need to specify any additional devices to be installed, do so at this time. Once all devices are specified, continue to step 7.*

7. From the Windows 2000 Setup screen, press the Enter key. Setup will now load all device files and then continue the Windows 2000 installation.

Installing Driver in Existing Windows 2000 System



WARNING: *If you will be moving the boot drive containing the existing Windows 2000 operating system to a mirrored RAID 1 array on the FastTrak 376 , the FastTrak 376 driver MUST be loaded to the hard drive while it is still attached to your existing hard drive controller. Do not attach this drive or any other hard drive to the FastTrak 376 controller before completing this step.*

After installing the FastTrak 376 and rebooting your system, Windows 2000 setup will show a "New Hardware Found" dialog box. Under Windows 2000, the "PCI RAID Controller" will be displayed.

1. In the dialog box, choose "Driver from disk provided by hardware manufacturer" button.
2. In the A: drive, insert the FastTrak 376 driver diskette.
3. Type "A:\WIN2000" in the text box. Press "Enter".
4. Choose "Win2000 Promise FastTrak 376 (tm) Controller" from the list that appears on screen, then press the "Enter" key.
5. The Windows 2000 Setup screen will appear again saying "Setup will load support for the following mass storage devices – Win2000 Promise FastTrak 376 (tm) controller". The FastTrak 376 driver will now be copied on to the system and entered into the Windows 2000 driver database.
6. When the "System Settings Change" dialog box appears, remove the floppy diskette and click on "Yes" to restart the system. Windows 2000 will then restart for the driver installation to take effect.
7. Power off your system, then attach your hard drives to the FastTrak 376 controller.

Motherboard Description

Confirming Windows 2000 Installation

1. From Windows 2000, open the Control Panel from “My Computer” followed by the System icon.
2. Choose the “Hardware” tab, then click the “Device Manager” tab.
3. Click the “+” in front of “SCSI & RAID Controllers hardware type.” The driver “Win2000 Promise FastTrak 376 (tm) Controller” should appear.

Windows 98/Me

Installing Drivers During Windows 98/Me Installation

The following three sections detail the installation of the FastTrak 376 drivers while installing Windows 98/Me (with the FastTrak 376 controller already in place). If you're installing the FastTrak 376 drivers on a system with Windows 98/Me already installed, see “Installing Drivers with Existing Windows 98/Me” on page 31.

Windows 98/Me

1. After installing the FastTrak 376 controller and configuring the hard drive(s), partition and format your hard drive(s), if necessary.
2. Install Windows 98/Me normally.
3. After installation, go the “Start” menu and choose “Settings.”
4. From the “Settings” menu, choose “Control Panel.”
5. In the “Control Panel” window, double-click on the “System” icon.
6. In the “System” window, choose the “Device Manager” tab.
7. In the hierarchical display under “Other Devices” is a listing for “PCI RAID Controller.” Choose it and then press the “Properties” button.
8. Choose the “Driver” tab in the “Properties” window, choose “Update Driver,” and then press “Next.”
9. Choose “Search for a better driver than the one your device is using now (recommended),” then press “Next.”
10. Choose “Specify Location,” and then type “A:\WIN98” in the text box.
11. Insert the FastTrak 376 Driver diskette into the A: drive.

Motherboard Description

12. Press the "Next" button. A message informing you that Windows 98 has found "Win98-ME Promise FastTrak 376 (tm) Controller" should appear.
13. Press "Next," then "Finish," then "Yes" when asked if you want to restart your computer. Be sure to remove the diskette from drive A:.

Installing Drivers with Existing Windows 98/Me

The following three sections detail the installation of FastTrak 376 drivers on a system that has Windows 98/Me already installed. If you're installing the FastTrak 376 drivers on a system during a Windows 98/Me installation, see "Installing Drivers During Windows 98/Me Installation" on page 30.

Windows 98/Me

1. After installing the FastTrak 376 controller and configuring the hard drives, power up the system and boot Windows.
2. The "Add New Hardware Wizard" will appear, informing you that it has found a "PCI RAID Controller."
3. Check the "Search for the best driver for your device" box and click the Next button.
4. Check the "Specify a Location" box and click Next button.
5. Type "A:\WIN98" in the text box that appears.
6. Insert the FastTrak 376 Driver diskette in drive A:.
7. Click on "Next." The Add New Hardware wizard will say it has found "Win98-ME Promise FastTrak 376 (tm) controller".
8. Click on "Next," and then on "Finish."
9. Choose "Yes" when asked if you want to restart your computer. Be sure to eject the diskette from drive A:.

Confirming Driver Installation in Windows 98/Me

To confirm that the driver has been properly loaded in Win 98/Me, perform the following steps:

1. Choose "Settings" from the "Start" menu.
2. Choose "Control Panel," and then double-click on the "System" icon.
3. Choose the "Device Manager" tab, and then click the "+" in front of "SCSI & RAID controllers." "Win98-ME Promise FastTrak 376 (tm) controller" should appear.

Motherboard Description

Windows NT4

Installing Drivers During Windows NT 4.0 Installation

1. Start the system installation by booting from the Windows NT disk:
 - a) Floppy install: boot the system with the FastTrak 376 driver diskette.
 - b) Floppyless install: boot from floppy and type "WINNT /B". After files have been copied, the system will reboot. On the reboot, press the "F6" key when the message "Setup is inspecting your computer's hardware configuration..." appears.
 - c) CD-ROM disk install: boot from the CD-ROM disk and press the "F6" key when the message "Setup is inspecting your computer's hardware configuration..." appears.
2. When the "Windows NT Setup" window is generated, press "S" to Specify an Additional Device(s).
3. Press "O" to select "Other" and press the "Enter" key.
4. Insert the FastTrak 376 driver diskette into drive A: and press the "Enter" key.
5. Choose "Win NT Promise FastTrak 376 (tm) Controller" from the list that appears on screen, then press the "Enter" key.
6. The Windows NT Setup screen will appear again saying "Setup will load support for the following mass storage devices:" The list will include "Win NT Promise FastTrak 376 (tm) controller".

NOTE: *If you need to specify any additional devices to be installed, do so at this time. Once all devices are specified, continue to step 7.*
7. From the Windows NT Setup screen, press the Enter key. Setup will now load all device files and then continue the Windows NT installation.
8. After a successful installation, the "SCSI Adapter Setup" box will show that the "Win NT Promise FastTrak 376 (tm) Controller" driver has been installed.

Motherboard Description

Installing Driver with Existing Windows NT 4.0



WARNING: *If you plan to move your boot drive to a mirrored RAID 1 FastTrak array, hard drives should NOT be connected to the FastTrak 376 controller before performing the following procedure. The FastTrak 376 drivers must be loaded on the system hard drive (running under the existing hard drive controller) before any hard drives are connected to the FastTrak 376 controller.*

1. Choose "Settings" from the "Start" menu.
2. Choose "Control Panel" from the "Settings" menu.
3. Double-click on the "SCSI Adapters" icon, which generates the "SCSI Adapters" dialog box.
4. Choose "Drivers," and then press "Add."
5. In the "Install Drivers" dialog box, press "Have Disk..."
6. When the "Install From Disk" appears, insert the "FastTrak 376 Driver" diskette in drive A:.
7. Type "A:\NT4" in the text box window, then choose "OK."
8. When the "Install Driver" dialog box appears, select "Win NT Promise FastTrak 376 (tm) Controller" and then press "OK."
9. When the "Select SCSI Adapter Option" dialog box appears, press "Install."
10. After a successful installation, the "SCSI Adapter Setup" box will show that the "Win NT Promise FastTrak 376 (tm) Controller" has been installed.
11. Power off your system.
12. If moving the boot drive to the FastTrak 376, now attach the hard drives otherwise reboot.

Motherboard Description

Removing the Driver from Windows NT 4.x

1. In "Start" Button choose "Control Panel" in "Setup" group.
2. In "Control Panel," select "SCSI Adapter," next choose "Drivers" label
3. Choose "Remove" button.
4. After successful removing, the "SCSI Adapter Setup" box will show that "Win NT FastTrak 376 RAID Controller" has been removed.

Motherboard Description

Step 4: Install PAM Utility

PAM (Promise Array Management™) Installation

This section outlines the installation procedure for a component of the PAM software package.

NOTE: *If you are re-installing PAM, you must first stop the services for the Message Server and Message Agent for installation to work.*

- 1) The main PAM component installation menu will come up as seen below.

PAM Component Installation Menu

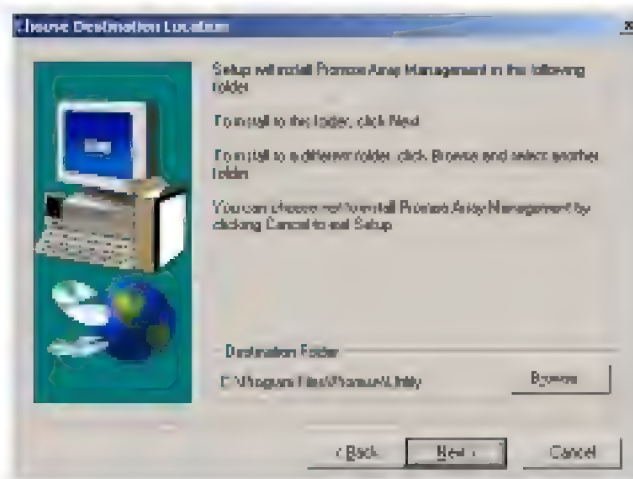
- 2) Select SuperTrak, FastTrak... or Custom installation by clicking it. Then click the "Next" button to display the installation you have chosen.
- 3) Review the installation settings. If the settings are correct, click "Finish" and proceed to the license agreement window; otherwise click "Back" and return to Step 2.

Motherboard Description

- 4) You must click “Yes” and agree to the licensing terms to the use the PAM utility. Clicking “No” will exit the PAM setup.

Motherboard Description

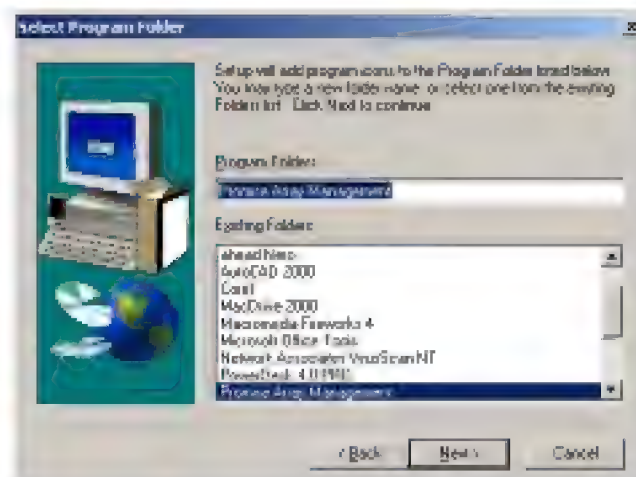
- 5) When the “Choose Destination Location” window comes up, choose a directory to install this component.
- 6) Click “Browse” to select a Destination folder other than the folder suggested by default. Click the “Next” button to accept the location selected.



Choose Destination Location Window

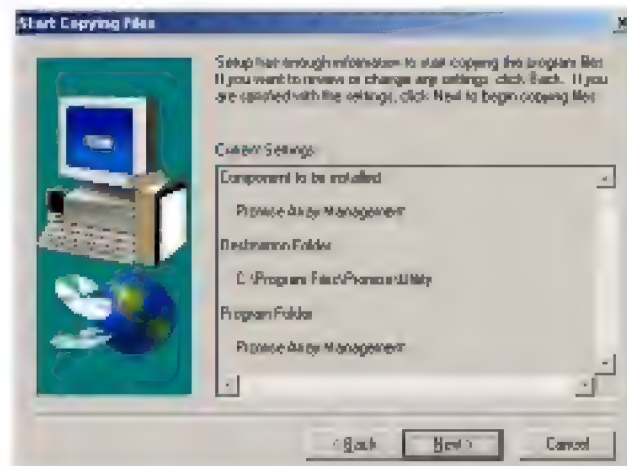
- 7) The “Select Program Folder” window comes up next. Choose a Start menu folder to list this item under by entering a folder name, and selecting a parent folder from the list under which this new folder's contents will reside. Click the “Next” button to proceed.

Motherboard Description



Select Program Folder Window

- 8) The “Start Copying Files” window will then be displayed. Verify that the proper component(s), destination folder, and program folder you selected for installation are correct, then click on the “Next” button to proceed, otherwise, click the “Back” button to go back and make changes.

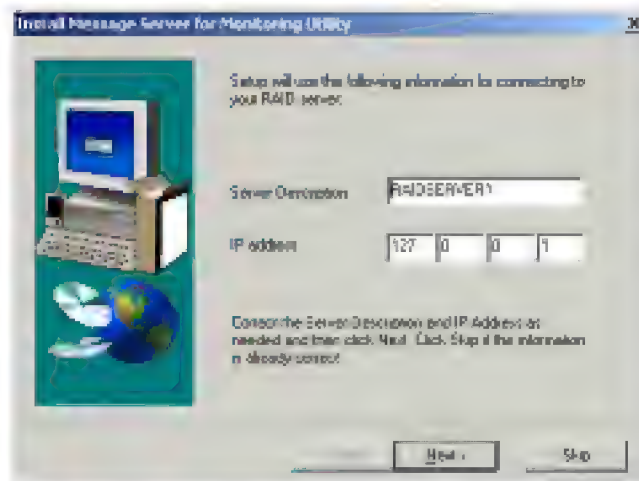


Start Copying Files Window

Motherboard Description

- 9) At the “Install Message Server for Monitoring Utility,” shown in 0, enter an appropriate name for the “Server Description” and complete the “IP address” information and then click “Next”. Click “Next” if the information is already correct. Contact your system administrator if you do not know the IP address.

Note: When asked for an IP address during the installation or log process, always use the IP address for the system that contains the remote PAM compatible array that you wish to monitor. If you are installing PAM on the same workstation that contains a PAM compatible array then use the default IP address (127.0.0.1).



Install Message Server for Monitoring Utility Window

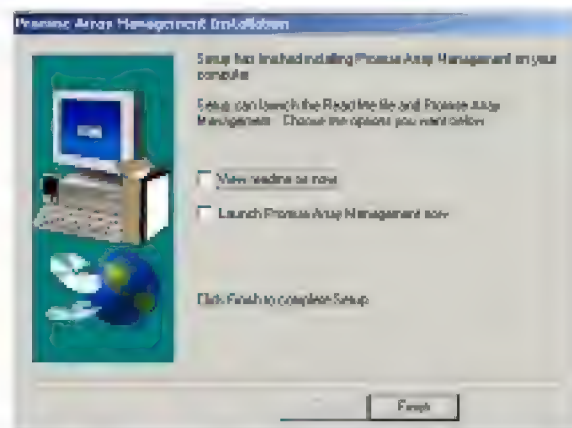
- 10) Complete the “Add User Account for Administration” information, see 0. You may accept the default name or you may enter a new name in the “Name” field. Enter a password in the “Password” field and enter the same password in the “Confirm Password” field. Click “Next” after you have completed all of the fields.

Motherboard Description



Add User Account for Administration

- 11) Select "View readme.txt now" to read the latest product release information and select "launch Promise Array Management now" if you wish to run utility directly from setup. Click on the "Finish" button to complete the install process.



Setup Finished

Motherboard Description

Using FastBuild™ Configuration Utility

The FastBuild™ Configuration Utility offers several menu choices to create and manage the drive array on the Promise FastTrak 376. For purposes of this manual, it is assumed you have already created an array in the previous chapter and now wish to make a change to the array or view other options.

Navigating the FastBuild™ Setup Menu Viewing FastTrak 376 BIOS Screen

When you boot your system with the FastTrak 376 and drives installed, the Promise onboard BIOS will detect the drives attached and show the following screen.

```
FastTrak 376 (tm) BIOS Version 2.00.0.XX
(c) 2002-2005 Promise Technology, Inc. All Rights Reserved.

Scanning IDE drives . . . . .
```

If an array exists already, the BIOS will display the following screen showing the BIOS version and status of the array.

```
FastTrak 376 (tm) BIOS Version 2.00.0.xx
(c) 2002-2005 Promise Technology, Inc. All Rights Reserved.

  ID          MODE   SIZE   TRACK-MAPPING   STATUS
  1 *         2+0 Stripe 16126M      611/128/32      Functional

Press <Ctrl-F> to enter FastBuild (tm) Utility....
```

The array status consists of three possible conditions: Functional, Critical, Offline.

Functional - The array is operational.

Critical - A mirrored array contains a drive that has failed or disconnected. The remaining drive member in the array is functional. However, the array has

Motherboard Description

temporarily lost its ability to provide fault tolerance. The user should identify the failed drive through the FastBuild™ Setup utility, and then replace the problem drive.

Offline - A striped array has 1 drive that has failed or been disconnected. When the array condition is “offline,” the user must replace the failed drive(s), then restore data from a backup source.

Navigating the FastBuild™ Setup Menu

When using the menus, these are some of the basic navigation tips: Arrow keys highlights through choices; [Space] bar key allows to cycle through options; [Enter] key selects an option; [ESC] key is used to abort or exit the current menu.

Using the Main Menu

This is the first option screen when entering the FastBuild™ Setup.

```
FastBuild (tm) Utility 2.xx (c) 2002-2005 Promise Technology, Inc.
[ Main Menu ]

Auto Setup..... [ 1 ]
View Drive Assignments..... [ 2 ]
View Array ..... [ 3 ]
Delete Array ..... [ 4 ]
Rebuild Array..... [ 5 ]

[ Keys Available ]

Press 1...5 to Select Option          [ESC] Exit
```

To create a new array automatically, follow the steps under “Creating Arrays Automatically” on page 22. Promise recommends this option for most users.

Motherboard Description

To view drives assigned to arrays, see “Viewing Drive Assignments” on page 44.

To delete an array (but not delete the data contained on the array), select “Deleting An Array” on page 45.

To rebuild a mirrored array, see “Rebuilding an Array” on page 47.



NOTE: After configuring an array using FastBuild™, you should FDISK and format the arrayed drive(s) if you are using new, blank drives. Depending on the type of array you are using.

Creating Arrays Automatically

The Auto Setup <1> selection from the Main Menu can intuitively help create your disk array. It will assign all available drives appropriate for the disk array you are creating. After making all selections, use Ctrl-Y to Save selections. FastBuild™ will automatically build the array.

FastBuild (tm) Utility 1.xx (c) 1995-2000 Promise Technology, Inc.	
[Auto Setup Options Menu]	
Optimize Array for:	Performance
[Array Setup Options Menu]	
Mode	Stripe
Spare Drive	1
Drives used in Array	2
Array Disk Capacity	16126
[Keys Available]	
[↑] Up [↓] Down	[←, →, Space] Change Option [ESC] Exit [Ctrl-Y] Save

Motherboard Description

Optimize Array For

Select whether you want Performance (RAID 0), Security (RAID 1) under the "Optimize Array for" setting.

Performance (RAID 0 Striping)

Supports the maximum performance. The storage capacity equals the number of drives times the capacity of the smallest drive in the disk array.

NOTE: FastTrak 376 permits striped arrays using 1, 2 drive attached in Auto Setup mode.

Security (RAID 1 Mirroring)

Creates a mirrored (or fault tolerant) array for data security.

NOTE: Under the Security setting, FastTrak 376 permits two drives to be used for a single Mirrored array only.

NOTE: If you wish to customize the settings of individual disk arrays (such as block size), you must manually create disk arrays with the Define Array <3> option from the Main Menu.

Viewing Drive Assignments

The View Drive Assignments <2> option in the Main Menu displays whether drives are assigned to a disk arrays or are unassigned.

The menu also displays the data transfer mode that relates to speed used by each drive (U6 refers to 133MB/sec transfers, U5 refers to 100MB/sec transfers, U4 refers to 66MB/sec transfers, etc...)

FastBuild (tm) Utility 1.xx (c) 1995-2000 Promise Technology, Inc.				
[View Drive Assignments]				
Channel:ID	Drive Model	Capacity(MB)	Assignment	Mode
1 : Master	QUANTUMCR8.4A	8063	Array 1	U5
2 : Master	QUANTUMCR8.4A	8063	Array 1	U5
[Keys Available]				
[↑] Up [↓] Down [ESC] Exit Mode (D=DMA, U=UDMA)				

Motherboard Description

How FastTrak 376 Orders Arrays

During startup, the disk arrays on the FastTrak 376 are recognized in this order: 1) The array set to bootable in the FastBuild™ Setup, and 2) the Array number (i.e. Array 0, Array 1...). This would be involved in determining which drive letters will be assigned to each disk array.

How FastTrak 376 Saves Array Information

All disk array data is saved into the reserved sector on each array member. Promise suggests that users record their disk array information for future reference.

Another feature of the FastTrak 376 disk array system is to recognize drive members even if drives are moved between different FastTrak 376 controller connectors. Since each drive's array data identifies itself to the array, it is possible to move or swap drives without modifying the array setup. This is valuable when adding drives, or during a rebuild.

Deleting An Array

The Delete Array <4> Menu option allows for deletion of disk array assignments. This is not the same as deleting data from the drives themselves. If you delete an array by accident (and before it has been used again), the array can normally be recovered by defining the array identically as the deleted array.



WARNING: *Deleting an existing disk array could result in its data loss. Make sure to record all array information including the array type, the disk members, and stripe block size in case you wish to undo a deletion.*

Motherboard Description

FastBuild (tm) Utility 2.xx (c) 2002-2005 Promise Technology, Inc.

[Delete Array Menu]

Array No	RAID Mode	Total Drv	Capacity(MB)	Status
Array 1	Stripe	2	16126	Functional
Array 2	—	—	—	—
Array 3	—	—	—	—
Array 4	—	—	—	—

[Keys Available]

[↑] Up [↓] Down	[ESC] Exit	[Del] Delete
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1. To delete an array, highlight the Array you wish to delete and press the [Del] key.
2. The View Array Definition menu will appear (see below) showing which drives are assigned to this array.

FastBuild (tm) Utility 2.xx (c) 2002-2005 Promise Technology, Inc.

[Define Array Menu]

Array No	RAID Mode	Total Drv	Capacity(MB)	Status
Array 1	—	—	—	—

Stripe Block: 64 KB

[Drive Assignments]

Channel:ID	Drive Model	Capacity (MB)	Assignment
1 : Master	QUANTUMCR8.4A	8063	Y
2 : Master	QUANTUMCR8.4A	8063	Y

3. Confirm yes to the following warning message with the <Ctrl-Y> key to continue array deletion:

Motherboard Description

Are you sure you want to delete this array?
Press Ctrl-Y to Delete, others to Abort

4. After deleting the array, you should create a new array using Auto Setup or the Define Array menu from the FastBuild Main Menu.

Rebuilding A Mirrored Array

The Rebuild Array <5> Menu option is necessary to recover from an error in a mirrored disk array. You will receive an error message when booting your system from the FastTrak BIOS.

NOTE: *Drives MUST be replaced if they contain any physical errors.*

Follow these steps BEFORE using the Rebuild Array menu option:

1. On bootup, the FastTrak 376 Startup BIOS will display an error message identifying which drive has failed.
2. Press <Ctrl-F> keys to enter FastBuild Main Menu.
3. Select submenu Define Array <3>.
4. Select the failed array and identify the Channel and ID of the failed drive.
5. Power off and physically remove the failed drive.
6. Replace the drive with an identical model.
7. Reboot the system and enter the FastBuild Main Menu.
8. Select the <5> Rebuild Array option. The following screen will appear.

Motherboard Description

FastBuild (tm) Utility 2.xx (c) 2002-2005 Promise Technology, Inc.

[Rebuild Array Menu]

Array No	RAID Mode	Total Drv	Capacity(MB)	Status
Array 1	Mirror	2	16126	Critical
Array 2	—	—	—	—
Array 3	—	—	—	—
Array 4	—	—	—	—

[Keys Available]

[↑] Up [↓] Down [ESC] Exit [Enter] Select

9. Highlight the array whose Status is "Critical".

10. Press [Enter]. The following screen will then appear (see below).

FastBuild (tm) Utility 2.xx (c) 2002-2005 Promise Technology, Inc.

[Rebuild Array Menu]

Array No	RAID Mode	Total Drv	Status
Array 2	Mirror	2	Critical

Stripe Block: Not Available

[Select Drive for Rebuild]

Channel:ID	Drive Model	Capacity (MB)
1 : Slave	QUANTUMCR8.4A	8063

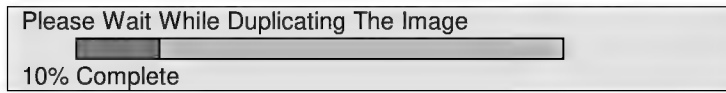
[Keys Available]

[↑] Up [↓] Down [ESC] Exit [Enter] Select

11. Under [Select Drive for Rebuild], highlight the replacement drive.

Motherboard Description

12. Press [Enter] and confirm that the data will be copied on to the selected drive. All data on the replacement drive will be written over with mirrored information from the array drive. A progress bar will appear as below.



13. Once the rebuild process is complete, the user will be asked to reboot the system.

WarpSpeeder

Introduction



[WarpSpeeder™], a new powerful control utility, features three user-friendly functions including Overclock Manager, Overvoltage Manager, and Hardware Monitor.

With the Overclock Manager, users can easily adjust the frequency they prefer or they can get the best CPU performance with just one click. The Overvoltage Manager, on the other hand, helps to power up CPU core voltage and Memory voltage. The cool Hardware Monitor smartly indicates the temperatures, voltage, CPU fan speed as well as the chipset information. Also, in the About panel, you can get the detailed descriptions about BIOS model and chipsets. In addition, the frequency statuses of CPU, memory, AGP, and PCI along with the CPU speed are synchronically shown on our main panel.

Moreover, to protect users' computer systems if the setting is not appropriate when testing and results in system fails or hangs, [WarpSpeeder™] technology assures the system stability by automatically rebooting the computer and then restart to a speed that is either the original system speed or a suitable one.

Motherboard Description

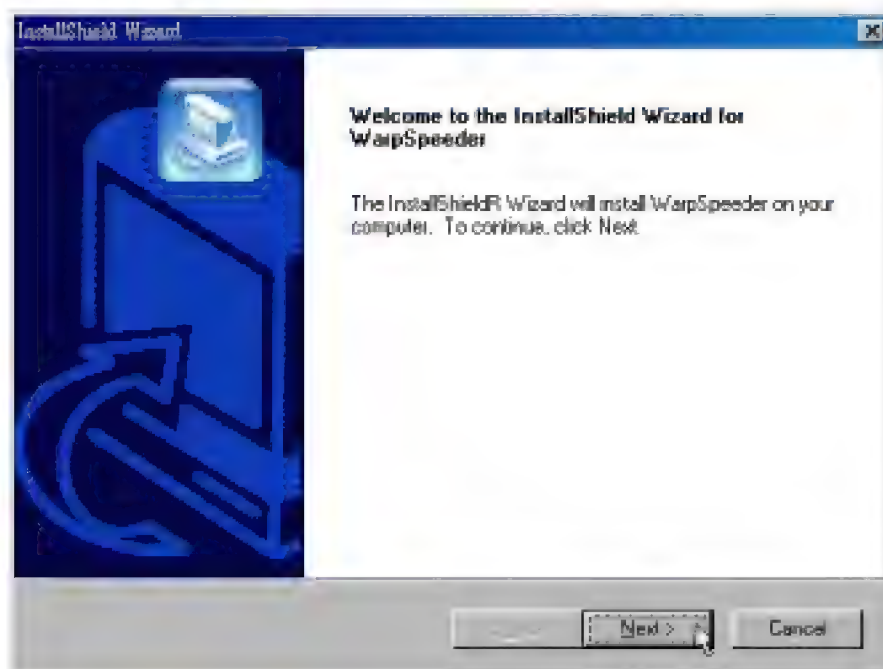
System Requirement

OS Support: Windows 98 SE, Windows Me, Windows 2000, Windows XP

DirectX: DirectX 8.1 or above. (The Windows XP operating system includes DirectX 8.1. If you use Windows XP, you do not need to install DirectX 8.1.)

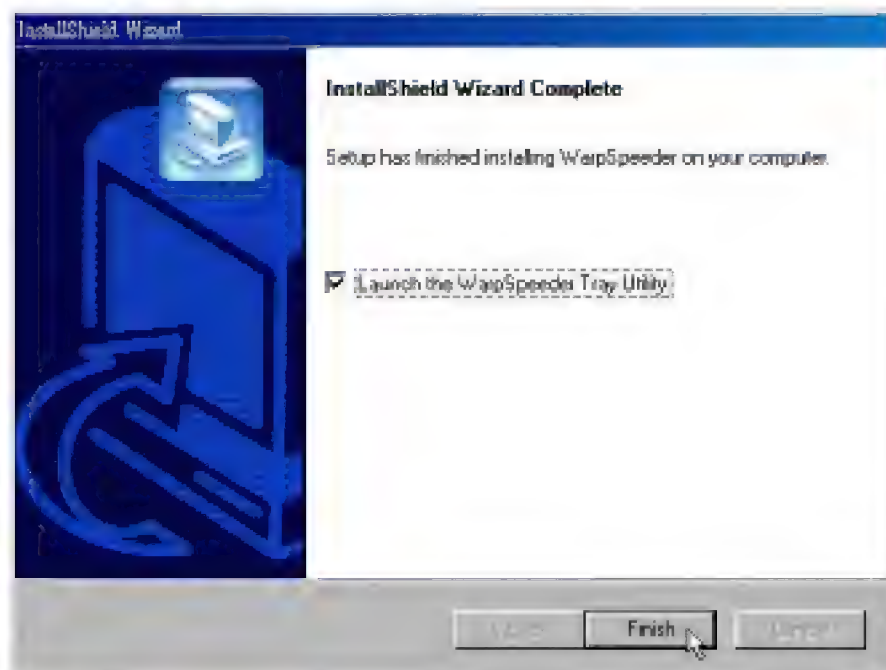
Installation

1. Execute the setup execution file, and then the following dialog will pop up. Please click "Next" button and follow the default procedure to install.



Motherboard Description

2. When you see the following dialog in setup procedure, it means setup is completed. If the "Launch the WarpSpeeder Tray Utility" checkbox is checked, the Tray Icon utility and [WarpSpeeder™] utility will be automatically and immediately launched after you click "Finish" button.



Usage

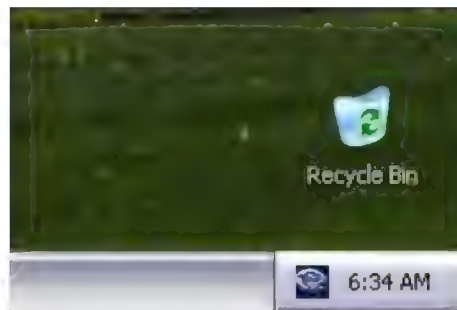
The following figures are just only for reference, the screen printed in this user manual will change according to your motherboard on hand.

[WarpSpeeder™] includes 1 tray icon and 5 panel:

1. Tray Icon:

Motherboard Description

Whenever the Tray Icon utility is launched, it will display a little tray icon on the right side of Windows Taskbar.



This utility is responsible for conveniently invoking [WarpSpeeder™] Utility. You can use the mouse by clicking the left button in order to invoke [WarpSpeeder™] directly from the little tray icon or you can right-click the little tray icon to pop up a popup menu as following figure. The “Launch Utility” item in the popup menu has the same function as mouse left-click on tray icon and “Exit” item will close Tray Icon utility if selected.



2. Main Panel

If you click the tray icon, [WarpSpeeder™] utility will be invoked. Please refer to the following figure; the utility's first window you will see is Main Panel.

Main Panel contains features as follows:

- a. Display the CPU Speed, CPU external clock, Memory clock, AGP clock,

Motherboard Description

and PCI clock information.

b. Contains About, Voltage, Overclock, and Hardware Monitor Buttons for invoking respective panels.

c. With a user-friendly Status Animation, it can represent 3 overclock percentage stages:

Man walking => overclock percentage from 100% ~ 110 %

Panther running => overclock percentage from 110% ~ 120%

Car racing => overclock percentage from 120% ~ above



3. Voltage Panel

Click the Voltage button in Main Panel, the button will be highlighted and the Voltage Panel will slide out to up as the following figure.

In this panel, you can decide to increase CPU core voltage and Memory voltage

Motherboard Description

or not. The default setting is “No”. If you want to get the best performance of overclocking, we recommend you click the option “Yes”.



4. Overclock Panel

Motherboard Description

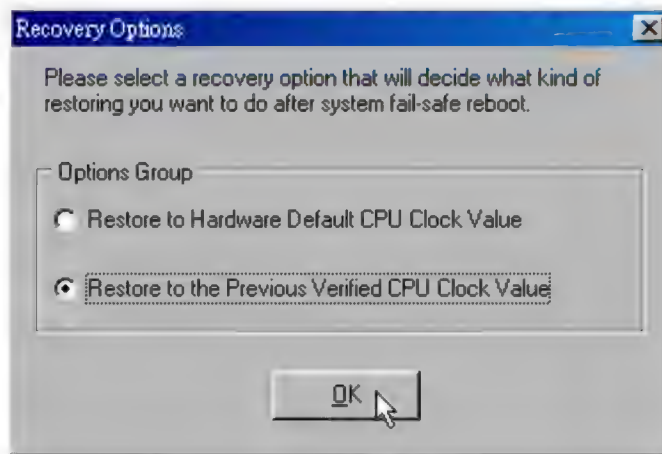
Click the Overclock button in Main Panel, the button will be highlighted and the Overclock Panel will slide out to left as the following figure.

Overclock panel contains the following features:

- a. “-3MHz button”, “-1MHz button”, “+1MHz button”, and “+3MHz button”: provide user the ability to do real-time overclock adjustment.

Warning: Manually overclock is potentially dangerous, especially when the overclocking percentage is over 110 %. We strongly recommend you verify every speed you overclock by click the Verify button. Or, you can just click Auto overclock button and let [WarpSpeeder™] automatically gets the best result for you.

- b. “Recovery Dialog button”: Pop up the following dialog. Let user select a restoring way if system need to do a fail-safe reboot.



- c. “Auto-overclock button”: User can click this button and [WarpSpeeder™] will set the best and stable performance frequency automatically. [WarpSpeeder™] utility will execute a series of testing until system fails. Then system will do fail-safe reboot by using Watchdog function. After reboot, the [WarpSpeeder™] utility will restore to the hardware default setting or load the verified best and stable frequency according to the Recovery

Motherboard Description

Dialog's setting.

- d. "Verify button": User can click this button and [WarpSpeeder™] will proceed a testing for current frequency. If the testing is ok, then the current frequency will be saved into system registry. If the testing fails, system will do a fail-safe rebooting. After reboot, the [WarpSpeeder™] utility will restore to the hardware default setting or load the verified best and stable frequency according to the Recovery Dialog's setting.

Note: Because the testing programs, invoked in Auto-overclock and Verify, include DirectDraw, Direct3D and DirectShow tests, the DirectX 8.1 or newer runtime library is required. And please make sure your display card's color depth is High color (16 bit) or True color(24/32 bit) that is required for Direct3D rendering.



5. Hardware Monitor Panel



1. *Journal of the American Medical Association*, 2000; 283: 2686-2692.

Motherboard Description



Motherboard Description

Note: Because the overclock, overvoltage, and hardware monitor features are controlled by several separate chipset, [WarpSpeeder™] divide these features to separate panels. If one chipset is not on board, the correlative button in Main panel will be disabled, but will not interfere other panels' functions. This property can make [WarpSpeeder™] utility more robust.

Motherboard Description

Trouble Shooting

PROBABLE	SOLUTION
No power to the system at all Power light don't illuminate, fan inside power supply does not turn on. Indicator light on keyboard does not turn on	<ul style="list-style-type: none">* Make sure power cable is securely plugged in* Replace cable* Contact technical support
PROBABLE	SOLUTION
System inoperative. Keyboard lights are on, power indicator lights are lit, hard drive is spinning.	<ul style="list-style-type: none">* Using even pressure on both ends of the DIMM, press down firmly until the module snaps into place.
PROBABLE	SOLUTION
System does not boot from hard disk drive, can be booted from CD-ROM drive.	<ul style="list-style-type: none">* Check cable running from disk to disk controller board. Make sure both ends are securely plugged in; check the drive type in the standard CMOS setup.* Backing up the hard drive is extremely important. All hard disks are capable of breaking down at any time.
PROBABLE	SOLUTION
System only boots from CD-ROM. Hard disk can be read and applications can be used but booting from hard disk is impossible.	<ul style="list-style-type: none">* Back up data and applications files. Reformat the hard drive. Re-install applications and data using backup disks.
PROBABLE	SOLUTION
Screen message says "Invalid Configuration" or "CMOS Failure."	<ul style="list-style-type: none">* Review system's equipment . Make sure correct information is in setup.
PROBABLE	SOLUTION
Cannot boot system after installing second hard drive.	<ul style="list-style-type: none">* Set master/slave jumpers correctly.* Run SETUP program and select correct drive types. Call drive manufacturers for compatibility with other drives.

Solución de Problemas

CAUSA PROBABLE	SOLUCIÓN
No hay corriente en el sistema. La luz de corriente no ilumina, ventilador dentro de la fuente de alimentación apagada. Indicador de luz del teclado apagado.	<ul style="list-style-type: none"> * Asegúrese que el cable de transmisión esté seguramente enchufado. * Reemplace el cable. * Contacte ayuda técnica.
CAUSA PROBABLE	SOLUCIÓN
Sistema inoperativo. Luz del teclado encendido, luz de indicador de corriente iluminado, disco rígido está girando.	<ul style="list-style-type: none"> * Presione los dos extremos del DIMM, presione para abajo firmemente hasta que el módulo encaje en el lugar.
CAUSA PROBABLE	SOLUCIÓN
Sistema no arranca desde el disco rígido, puede ser arrancado desde el CD-ROM drive.	<ul style="list-style-type: none"> * Controle el cable de ejecución desde el disco hasta el disco del controlador. Asegúrese de que ambos lados estén enchufados con seguridad; controle el tipo de disco en la configuración estándar CMOS. * Copiando el disco rígido es extremadamente importante. Todos los discos rígidos son capaces de dañarse en cualquier momento.
CAUSA PROBABLE	SOLUCIÓN
Sistema solamente arranca desde el CD-ROM. Disco rígido puede leer y aplicaciones pueden ser usados pero el arranque desde el disco rígido es imposible.	<ul style="list-style-type: none"> * Copie datos y documentos de aplicación. Vuelva a formatear el disco rígido. Vuelva a instalar las aplicaciones y datos usando el disco de copiado.
CAUSA PROBABLE	SOLUCIÓN
Mensaje de pantalla "Invalid Configuration" o "CMOS Failure."	<ul style="list-style-type: none"> * Revise el equipo del sistema. Asegúrese de que la información configurada sea correcta.
CAUSA PROBABLE	SOLUCIÓN
No puede arrancar después de instalar el segundo disco rígido.	<ul style="list-style-type: none"> * Fije correctamente el puente master/esclavo. * Ejecute el programa SETUP y seleccione el tipo de disco correcto. Llame a una manufacturación del disco para compatibilidad con otros discos.

09/30/2002
